

the lower basin of the Tennessee and Cumberland Rivers to from 3 to 11.5 inches over the watersheds of the upper Ohio River and the headwater tributaries.

Sleet storms caused considerable delay to traffic in Kentucky and bordering States on the 12th, 14th, and 23d. Thunderstorms occurred on the 1st in Illinois; on the 4th in Tennessee; on the 6th in Illinois, Indiana, Ohio, Kentucky, West Virginia, and Tennessee; on the 7th and 9th in Illinois; on the 10th and 11th in Illinois, Indiana, Ohio, Kentucky, and West Virginia; on the 12th in Kentucky and Tennessee; on the 18th in Tennessee, and on the 17th and 20th in Illinois. Several of these storms were attended by destructive winds, causing large damage over considerable areas.

DESTRUCTIVE STORM AND COLD WAVE OF THE 11TH-12TH.

This storm developed over the central Rocky Mountain region during the 10th and swept over the Central States during the 11th-12th. The path of the storm center extended eastward from Colorado to northwestern Missouri, thence northeastward across the upper Mississippi Valley and northern Lake Michigan to Ontario. A long and rather narrow but deep trough of low pressure extended southward to the Gulf States. The temperature gradient attending the disturbance was remarkably steep, as instanced by the fact that at 8 p. m., seventy-fifth meridian time, of the 11th, the temperature in the lower Ohio Valley registered from 72° to 76°, while at St. Louis it was 48°, at Kansas City 16°, and Dodge City, Kans., 12°. At Little Rock, Ark., it was 78°, and at Fort Smith, only about 150 miles to the westward and in the same State, it was 34°.

High winds attended the storm throughout its passage, continuing generally for many hours, while maximum velocities of from 50 to 70 miles per hour were reached at many places. Thunderstorms and severe wind squalls immediately preceded the break in temperature and resulted in much destruction to property in many sections, but especially in the region lying nearer the track of the center of the main storm. The rapid fall in temperature which immediately followed the passage of the storm trough soon changed the rain into sleet and snow. Brief summaries of some of the damage in this district follow:

Tennessee.—In Nashville and vicinity the estimated damage to property is placed at between \$50,000 and \$60,000. At Forest Grove, about

15 miles north of Nashville, a schoolhouse, 10 residences, and 14 barns were wrecked. Three persons were seriously injured and several head of stock were crippled, and over 70,000 pounds of tobacco materially damaged. At Mackenzie a handsome new residence which had only been completed and occupied a week was completely demolished, the occupants barely escaping with their lives; also a large roller mill, the city water tank, and a number of business houses were unroofed and a large amount of timber and many telegraph and telephone poles were blown down. At Union City on a farm belonging to Henry Garrigan the storm blew down the residence and barn. At Hygeia Springs a hotel was unroofed, 2 residences were blown down, and a large tobacco barn was struck by lightning and burned, together with a large crop of tobacco. A large number of forest and shade trees were uprooted, and some were twisted off near the ground. The damage to property in this section is estimated at from \$15,000 to \$20,000. At Lawrenceburg, Camden, Lebanon, and various other places the reports say that thousands of dollars damage was done by this storm. At Ducktown the lightning struck a house, and Miss Mary Long was instantly killed and another young lady and a baby seriously injured.

Kentucky.—Property damage throughout the State, especially in the western portion, was great, and the loss will probably run up into the hundreds of thousands of dollars. Houses and barns were unroofed, trees blown down, and the telephone and telegraph wires put out of commission. Louisville was cut off from communication with many of the larger cities of the State for several hours. The severe cold wave which so closely followed the storm caused great suffering.

Illinois.—Many small buildings, barns, windmills, etc., were either blown down or damaged by the storm. Telephone, telegraph, and railroad service was greatly hindered. The loss in many localities amounted to from \$5,000 to \$10,000.

Indiana.—The windstorm on the evening of the 11th caused extensive damage in many places, and the damaged areas were not confined to any particular portion of the State. The most important damage was about as follows: Bedford, about 15 stone mills were more or less damaged, 2 being completely wrecked. Many other buildings were unroofed or otherwise damaged, telephone and telegraph lines were blown down, and many smokestacks were leveled to the ground. The estimated loss in this vicinity is about \$200,000. Lafayette, the electric-light wires were broken by the wind and the city was in darkness for quite a while. A lady who was attending the theater at the time the storm broke was so badly frightened that she died suddenly on the street on her way home. Two garages were wrecked and the roofs of many stores were blown off. Considerable damage was done at the experiment station located at Purdue University. Heavy losses were reported from Shelby County, where houses and barns were demolished, orchards ruined, and live stock killed, besides much suffering was caused by the snow and cold which followed the storm. The Lutheran Church at Waldron and several houses were badly damaged. At Shoals the loss was estimated at \$25,000, including damage to a mill, store, church, high school, courthouse, and the bridge across White River. A dwelling house and barn also were demolished and 10 cows which were in the latter were killed. At Terre Haute 6 persons were injured. One was caught in the debris of his house, which was demolished; 2 were injured while in a caboose which was blown from the railroad track and fell down an embankment, and 3 were occupants of a buggy which was wrecked. Several houses northeast of the city were destroyed and a school building badly damaged. Many buildings were destroyed or partly wrecked at other places throughout the State, and considerable damage to shipping was reported from points along the Ohio River.